

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

NEW APPLICATION TRANSMITTAL

22387 U.S. PTO
10/814381



Transmitted herewith for filing is the patent application of

Inventor(s): Sun-jung Lee
Ki-chul Park

For (title): APPARATUS AND METHOD FOR
ELECTROPOLISHING METAL
WIRING LAYER ON
SEMICONDUCTOR DEVICE

1. **Type of Application** This new application is for
a(n)

- ☒ Original (nonprovisional)
☐ Design
☐ Plant
☐ Divisional.
☐ Continuation.
☐ Continuation-in-part (C-I-P).

2. **Benefit of Prior Application(s)**

- ☒ The new application being transmitted claims the benefit of prior Korean application
no. 03-28422. See Item 7.

3. **Papers Enclosed**

- 9 Pages of specification
 4 Pages of claims
 1 Page of Abstract
 3 Sheets of drawings
☒ formal
☐ informal
 Page of Cover Sheet

- ☐ The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT
PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. 1.84(b).

CERTIFICATE OF MAILING
37 C.F.R. § 1.10

"Express Mail" Mailing Label Number EV322657640US

I hereby certify that this paper or fee is being deposited with the
United States Postal Service "Express Mail Post Office to
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and is addressed to Mail Stop Patent Application, Commissioner for
Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: 3-31-07

Christopher Hren
Christopher Hren

CHRISTOPHER HREN
Print Name

4. Additional papers enclosed

- ☐ Preliminary Amendment
- ☒ Information Disclosure Statement (37 C.F.R. 1.98)
- ☒ Form PTO-1449 (PTO/SB/08A and 08B)
- ☒ Copies of cited references
- ☐ Declaration of Biological Deposit
- ☐ Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.
- ☐ Authorization of Attorney(s) to Accept and Follow Instructions from Representative
- ☐ Special Comments
- ☒ Other: Return Postcard.

5. Declaration or oath

- ☒ Enclosed
 - ☐ Unexecuted
 - ☒ Executed by
 - ☒ inventors
 - ☐ legal representative of inventor(s).
37 CFR 1.42 or 1.43.
 - ☐ joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.
 - ☐ This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See item 12 below for fee.
- ☐ Not Enclosed
- ☐ Application is made by a person authorized under 37 C.F.R. 1.41 (c) on behalf of all the above named inventor(s).
 - ☐ Showing that the filing is authorized.

6. Assignment

- ☒ An assignment of the invention to Samsung Electronics Co., Ltd.
 - ☒ is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☒ FORM PTO 1595 is also attached.
 - ☐ will follow.

7. Certified Copy

Certified copy(ies) of application(s)

Korea	03-28422	May 3, 2003
Country	Appln. no.	Filed
Country	Appln. no.	Filed
Country	Appln. no.	Filed

from which priority is claimed

☒ is (are) attached.

☐ will follow.

8. Fee Calculation (37 C.F.R. 1.16)

CLAIMS AS FILED				
	Number filed	Number Extra	Rate	Basic Fee 37 C.F.R. 1.16(a) <u>\$770.00</u>
Total				
Claims (37 CFR 1.16(c))	31 - 20 =	11	\$ 18.00	\$198.00
Independent				
Claims (37 CFR 1.16(b))	2 - 3 =	0	\$ 86.00	\$
Multiple dependent claim(s), if any (37 CFR 1.16(d))		+	\$290.00	

☐ A Preliminary Amendment canceling claims is enclosed. The filing fee is calculated based on the number of claims remaining after entry of the Preliminary Amendment.

☐ Amendment deleting multiple-dependencies is enclosed.

☐ Fee for extra claims is not being paid at this time.

Filing Fee Calculation \$968.00

9. Fee Payment Being Made at This Time

☐ Not Enclosed

☐ No filing fee is to be paid at this time.

(This and the surcharge required by 37 C.F.R. 1.16(e) can be paid subsequently.)

☒ Enclosed

☒ Basic filing fee \$ 968.00

☒ Recording assignment

(\$40.00; 37 C.F.R. 1.21(h))

(See attached "COVER SHEET FOR ASSIGNMENT
ACCOMPANYING NEW APPLICATION".)

\$ 40.00

Total fees enclosed

\$ 1,008.00

10. Method of Payment of Fees

☒ Checks in the amounts of \$ 968.00 and \$ 40.00

☐ Charge Account No. 50-1798 in the amount of \$ _____
A duplicate of this transmittal is attached.

11. Authorization to Charge Additional Fees

☒ The Commissioner is hereby authorized to charge the following additional fees during the entire pendency of this application to Account No. 50-1798.

☒ 37 C.F.R. 1.16(a), (f) or (g) (filing fees)

☒ 37 C.F.R. 1.16(b), (c) and (d) (presentation of extra claims)

☐ 37 C.F.R. 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)

☐ 37 C.F.R. 1.17 (application processing fees)

☐ 37 C.F.R. 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. 1.311(b))

12. **Instructions as to Overpayment**

- ☒ Credit Account No. 50-1798
☐ Refund

Date:

March 31, 2004

MILLS & ONELLO LLP

Eleven Beacon Street, Suite 605


Boston, MA 02108

Telephone: (617) 994-4900

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Respectfully submitted,



Anthony P. Onello, Jr.

Registration Number 38,572

Attorney for Applicant

16179 U.S. PTO
033104

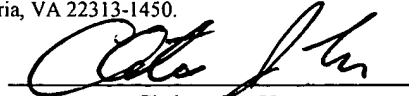
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Sun-jung Lee, *et al.*
Filing Date: Herewith
Title: APPARATUS AND METHOD FOR ELECTROPOLISHING A METAL WIRING
LAYER ON A SEMICONDUCTOR DEVICE

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.10

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3-31-04
Date


Christopher Hren

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Sir:

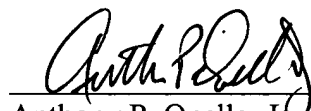
Enclosed herewith for filing in the above-identified patent application please find the following listed items:

1. New Application Transmittal;
2. New Patent Application;
3. Executed Declaration, Petition and Power of Attorney;
4. Three (3) Sheets of Formal Drawings (Figures 1-6);
5. Certified Copy of Priority Document - Korean Application No. 03-28422;
6. Check in the amount of \$968.00 to cover application filing fee;
7. Information Disclosure Statement;
8. PTO-1449 form and a copies of cited references AA, AB, AL;
9. Assignment Recordation Form Cover Sheet - - PTO-1595;
10. Executed Assignment;
11. Check in the amount of \$40.00 to cover Assignment Recordation fee; and
12. Return Postcard..

In connection with the foregoing matter, please charge any additional fees which may be due, or credit any overpayment, to Deposit Account Number 50-1798. A duplicate copy of this letter is provided for this purpose.

Respectfully submitted,

Date: March 31, 2004
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